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(54) Title: SENSORY PROSTHETIC FOR IMPROVED BALANCE CONTROL

(57) **Abstract:** A feedback device for measuring balance related information, and for producing a stimulation of the skin that encodes that information in a way that is useful to the wearer of the device. At least one sensor detects balance information and transmits at least one balance information signal to a signal processing subsystem. The signal processing subsystem converts the received balance information signal into at least one stimulation control signal. The signal processing subsystem then transmits the stimulation control signal to at least one stimulator, which provides stimulation to a wearer of the device reflecting the stimulation control signal received from the signal processing subsystem.